H. G. MEAD.

WIRE BOUND CRATE.

APPLICATION FILED FEB. 1, 1911.

1,077,624.

Patented Nov. 4, 1913.

Fig. 2.

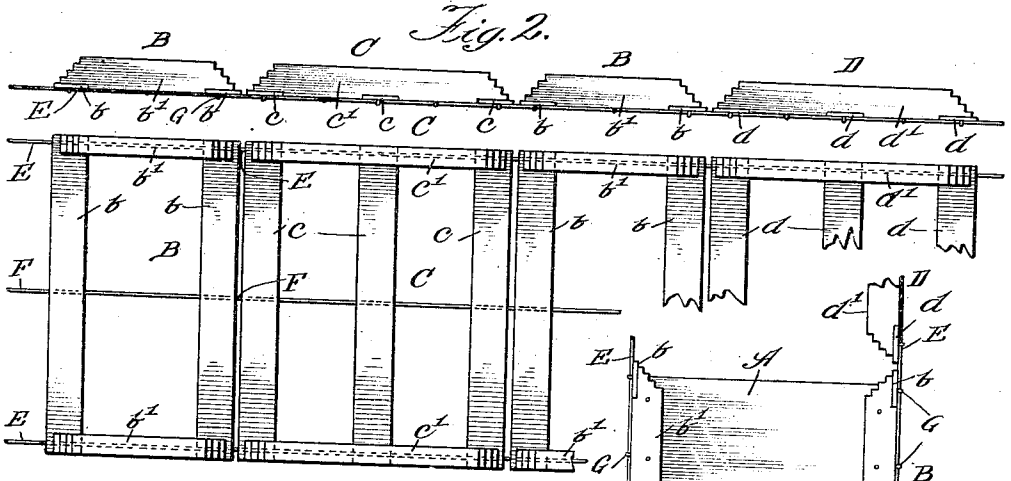


Fig. 3.

Fig. 4.

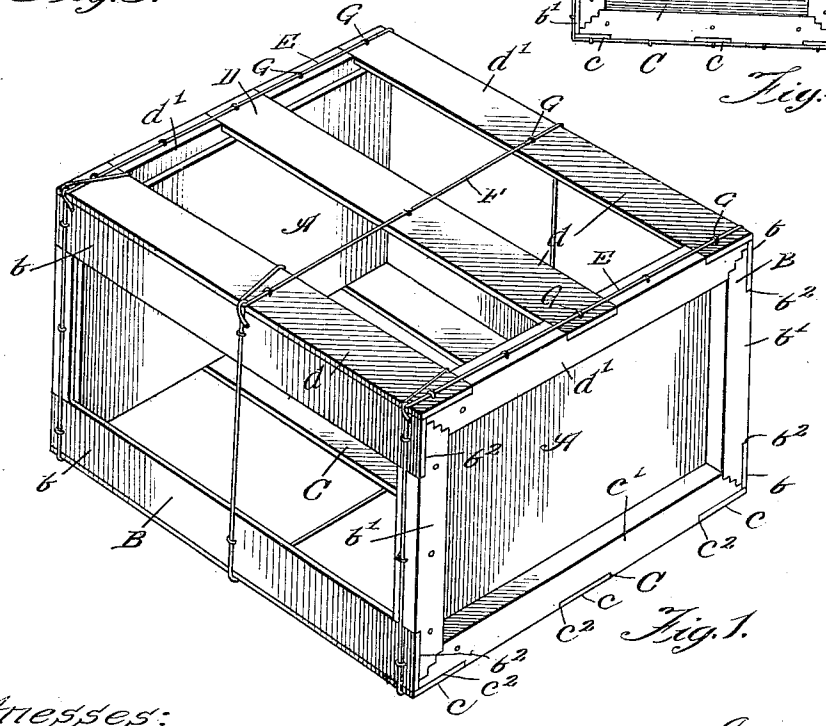


Fig. 1.

Witnesses:

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UNITED STATES PATENT OFFICE.

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WIRE-BOUND CRATE.

1,077,624. Specification of Letters Patent. Patented Nov. 4, 1913.

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To all whom it may concern:

Be it known that I, HOWARD G. MEAD, a citizen of the United States of America, and resident of St. Louis, Missouri, have invented a certain new and useful Improvement in Wire-Bound Crates, of which the following is a specification.

My invention relates to the manufacture of wire-bound boxes and crates of that kind in which the sides are made from blanks composed of sheets or strips of veneer or other similar material flexibly connected together by wire or other similar binding and reinforced at their edges by cleats secured to the inner surface thereof.

The object of my invention is to provide a crate which is made in the manner of the ordinary wire-bound box, except that instead of having tight or closed sides it is made with sides composed of slats which are spaced apart to provide the crate with open spaces in the sides thereof, and in which the construction is such that during the making of the blank no mechanical provision is necessary for spacing the slats apart to form the openings in the sides of the crate, the formation of the cleats being all that is necessary for this purpose, such formation being also adapted to insure a better and more satisfactory attachment of the binding wires than was possible with the methods heretofore proposed for making wire-bound crates, as will hereinafter more fully appear.

To these and other useful ends my invention consists in matters hereinafter described and claimed.

In the accompanying drawings,—Figure 1 is a perspective of a wire-bound crate embodying the principles of my invention. Fig. 2 is a side elevation or edge view of the wire-bound blank from which the sides of said crate are made. Fig. 3 is an inside plan view of the said blank, with a portion thereof broken away for convenience of illustration. Fig. 4 is an end elevation of the crate shown in Fig. 1, with the cover thereof open and partially broken away for convenience of illustration.

As thus illustrated, my improved wire-bound crate comprises end walls A—A, sides B—B, a bottom C and a cover D. The said sides and bottom and cover are flexibly connected together by the binding wires E at the side edges thereof, and at the center by the wire F. The sides B are composed of slats b secured to the ends of the parallel cleats b^1, which latter have a recess or gain b^2 in the upper surface of each end thereof to receive the slats and thereby make the latter flush with the said outer surface of the cleats. Thus each side consists of two slats and two cleats, and the slats are properly spaced apart by the formation of the cleats. The bottom C consists of three slats c secured to two end cleats c^1, said cleats having end and middle recesses or gains c^2 in the outer surfaces thereof to receive the said slats. The cover D is like the said bottom, as will be seen from the drawing, and does not, therefore, need further explanation. The said cleats, as shown, are all step-mitered at their ends to engage each other when the blank is folded, and at such time the slats preferably lap at the corners of the crate as the recesses or gains at the ends are open at the outer side thereof. The ends of the cleats may, however, have any suitable or desired formation. The end walls A are nailed or stapled to the cleats in any suitable manner. As shown, these end walls are of such size that their edges, which are straight, do not extend to the outer edges of the cleats, whereby each cleat has a portion of its inner surface left uncovered. It is in this uncovered or outer portion of each cleat that the gains or notches are formed for the slats.

During the making of the blank, on a suitable machine, no mechanical provisions are necessary for spacing the slats apart on the cleats, as the formation of the cleats is sufficient for this purpose. Furthermore, the staples G by which the binding wires of the blank are secured in place are all driven home, even those that are inserted in the cleats at points between the slats. In this way the binding wires are all secured in place in a proper and effective manner, and there is no necessity for making the stapler skip the spaces between the slats. The staples that pass through the ends of the slats enter the cleats to secure the latter in place on the inner surface of the blank. The cleats of the cover are, of course, not fastened to the end walls. The ends of the wire are twisted together and then bent around inside of the crate, as shown, whereby the sharp ends of the wire will not be likely to do any damage.

The recesses or gains in the cleats are very

important, as they not only in effect provide integral raised portions that space the slats apart while the blank is being made, but also serve to prevent displacement of the slats after the box is finished, and permit the wires to be securely fastened at points between the slats. In other words, the raised portions, which are preferably integral with the cleats, not only space the slats apart, but also support the binding wires horizontally between the slats.

What I claim as my invention is:

A wire bound crate comprising end walls, cleats secured along the edges of said end walls, with the outer edges of the cleats disposed a distance outside of said edges of the end walls, thereby leaving a portion of each cleat uncovered by the end wall secured thereto, the said uncovered portions of the cleats having gains therein, slats disposed in said gains, flush with the outer edges of said cleats, binding wires stretched around the crate, staples for securing both the binding wires and slats in place, and other staples for securing the binding wires directly to the cleats between the slats, said slats spaced apart to provide the crate with side openings, and said cleats having tongues occupying said spaces, to which tongues said wires are directly secured, as set forth.

Signed by me at St. Louis, Mo., this 27th day of January 1911.

HOWARD G. MEAD.

Witnesses:
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